NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ AP Stat WARM UP

Tests of significance

1. We want to estimate the average income of residents of Bucks County. We take a sample of 100 Bucks County households and find the average income to be $65,358. It is known that the population standard deviation is $3,569. Estimate the true average income with 98% confidence. ***(don’t forget to state and check assumptions, write the formula, and interpret the interval)***
2. The M&M Company reports that there are on average 58 pieces in each small bag of regular M&Ms. The standard deviation is known to be 9.1 pieces. We think it is more, so we take a simple random sample of 25 bags and find an average of 61 pieces of candy. Test the company’s claim at α=0.01.

ASSUMPTIONS (same as confidence interval, state and check)

HYPOTHESES

TEST STATISTIC

P-VALUE

CONCLUSION